

AMENDMENTS TO THE CLAIMS

1. (currently amended) A digital radio frequency (RF) circuit ~~(100)~~ that creates a signal in a desired range in a frequency spectrum, comprising:
circuitry ~~(104)~~ that produces a first sample data modulated signal ~~(105)~~ having a first frequency and a first sample data clock rate;
an up-sampler modulator ~~(108)~~ that receives the first sample data modulated signal ~~(105)~~ and produces a second sample data modulated signal ~~(109)~~ having a second frequency and a second sample data clock rate; and
circuitry ~~(112)~~ that receives the first sample data modulated signal ~~(105)~~ and the second sample data modulated signal ~~(109)~~ and delivers one of the first sample data modulated signal ~~(105)~~ and the second sample data modulated signal ~~(109)~~ for further processing depending on which sample data modulated signal exhibits desirable characteristics for a given operating environment.
2. (currently amended) The RF circuit ~~(100)~~ set forth in claim 1, comprising a first filter ~~(106)~~ having first filter characteristics that receives the first sample data modulated signal ~~(105)~~ and a second filter ~~(110)~~ having second filter characteristics that receives the second sample data modulated signal ~~(109)~~.
3. (currently amended) The RF circuit ~~(100)~~ set forth in claim 2, wherein at least one of the first filter ~~(106)~~ and the second filter ~~(110)~~ comprises a finite impulse response (FIR) filter.
4. (currently amended) The RF circuit ~~(100)~~ set forth in claim 1, wherein the first frequency is less than one half of a frequency of a digital data stream on which the first sample data modulated signal is based.
5. (currently amended) The RF circuit ~~(100)~~ set forth in claim 2, wherein the output of the first filter ~~(106)~~ and the output of the second filter ~~(110)~~ are delivered to the circuitry ~~(112)~~ that receives the first sample data modulated signal ~~(105)~~ and the second sample data modulated signal ~~(109)~~.

6. (currently amended) The RF circuit ~~(100)~~ set forth in claim 5, wherein the first filter ~~(106)~~ and the second filter ~~(110)~~ each comprise a finite impulse response (FIR) filter.
7. (currently amended) The RF circuit ~~(100)~~ set forth in claim 6, wherein the first filter ~~(106)~~ comprises an 80 MSps FIR filter and the second filter ~~(110)~~ comprises a 160 MSps FIR filter.
8. (currently amended) The RF circuit ~~(100)~~ set forth in claim 1, wherein the RF circuit comprises a portion of an orthogonal frequency division multiplexing (OFDM) transceiver ~~(10)~~.
9. (previously cancelled)
10. (previously cancelled)
11. (previously cancelled)
12. (previously cancelled)
13. (previously cancelled)
14. (previously cancelled)
15. (previously cancelled)
16. (previously cancelled)
17. (currently amended) A method of processing signals, comprising:
creating a first sample data modulated signal ~~(105)~~ having a first frequency and a first sample data clock rate;
up-sampling the first sample data modulated signal ~~(105)~~ to produce a second sample data modulated signal ~~(109)~~ having a second frequency and a second sample data clock rate; and
selecting between the first sample data modulated signal ~~(105)~~ and the second sample data modulated signal ~~(109)~~; and

delivering one of the first sample data modulated signal ~~(105)~~ and the second sample data modulated signal ~~(109)~~ for further processing depending on which sample data modulated signal exhibits desirable characteristics for a given operating environment.

18. (currently amended) The method set forth in claim 17, comprising filtering the first sample data modulated signal ~~(105)~~ and the second sample data modulated signal ~~(109)~~ using different filtering characteristics.

19. (currently amended) The method set forth in claim 17, comprising filtering the first sample data modulated signal ~~(105)~~ and the second sample data modulated signal ~~(109)~~ using finite impulse response filters (FIRs) ~~(202, 204)~~ having different filtering characteristics.

20. (original) The method set forth in claim 17, wherein the recited acts are performed in the recited order.